Classical textile remains in the British Museum collection

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Abstract: Cloth remains from 1st millennium BC Greece are relatively rare. The majority of the surviving fragments have been preserved in a mineralised state on metal objects. Re-examination of metal and other artefacts in museum collections is increasingly adding to the existing textile corpus. Recently, the remains of two new textile fragments were identified on finds presented to the British Museum by the British Salonica Force in 1919. The poster presents the textiles and discusses their significance within the larger corpus of extant classical Greek textiles.

Key words: textile, mineralised, imprint, Greece, Classical, Karabournaki

Introduction

Cloth remains from 1st millennium BC Greece are relatively rare. The majority of the surviving fragments have been preserved in a mineralised state on metal objects. Re-examination of artefacts in museum collections is increasingly adding to the existing textile corpus. Recently, two such textiles were identified in the British Museum collection.

The first is a mineralised fragment on an iron spearhead from a 5th-century BC grave-group from Karabournaki, northern Greece, excavated by the British Salonica Force in 1918 (Fig. 1).[3] Textile remains are preserved along the entire length of the spearhead's surface on one side, and on the edges (corrosion has largely destroyed the surface on the other side). The direction of the textile on the preserved surface changes, suggesting that the spearhead was wrapped in a piece of cloth, rather than being part of a garment worn by the deceased.

Evidence of the second textile survives as an imprint on a probable clay vessel rim waster (Fig. 2).[4] While the exact contextual information is not recorded, the find is presumed to come from a hellenistic context. It is likely that the imprint is a result of the pottery production process, whereby a textile was used to prevent the wet clay from drying too quickly.

Analytical procedures

The textiles were examined using a hand lens, and a digital Dino-Lite microscope. Fibre identification and diameter measurements of the Karabournaki textile were carried out using a Hitachi S-3700N variable pressure Scanning Electron Microscope at the British Museum. The following instrumental settings were used: accelerating voltage of 15 kV, a chamber pressure of 30 Pa and at working distances ranging between 12 and 16 mm. The diameter of fibres was measured using the SEM utility tool at 300× magnification.

Results

Textile 1

The mineralised textile is a weft-faced tabby weave with 11-12 threads per cm in the warp and 48-52 threads per cm in the weft (Fig. 3). The warp threads are z-twisted and tightly spun (with a twist angle of more than 45°), with a thread diameter of 0.25-0.3 mm (Fig. 4). The weft threads have a thread diameter of 0.22-0.33 mm; unlike the warp threads, they have no discernible spin (Fig. 5).

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[3] British Museum GR 1919, 1119.8; for the grave-group, see Morgan in press.
[4] British Museum GR 2013,5013.474.

A small textile sample was examined with the SEM and the presence of scales on the fibre surface indicates that the fibre is of animal origin, likely sheep wool.[5] The fibre diameter range, 15-33.3 μm (based on 23 available fibre measurements), and the mean fibre diameter, 22.92 μm, are also consistent with sheep wool. The quality is finer than the textiles from the 7th-6th century BC Tomb 24 at Kerkyra, Greece, which have a fibre diameter range of 13-48 μm and mean diameters varying between 27 and 30 μm.[6]

Textile 2

The textile imprint is an unbalanced tabby with 8 threads per cm in the warp and 11-12 threads per cm in the weft (Fig. 6). The poor quality of the imprint precludes further analysis.

Conclusions

The old textile finds preserved in museum collections should be re-examined with modern methods, even when they lack precise contextual information, in order to get more information about textiles in areas where they rarely survive and little has been published on the extant remains.

The type and quality of the examined textiles in terms of weave and thread counts is consistent with most of the other classical and hellenistic textile remains from Greece.[7] While many of the analysed surviving classical textile fragments are balanced tabbies (with approximately the same number of threads of similar thickness in both the warp and the weft), a large number are weft-faced tabbies. Some, like the Karabournaki textile, have weft thread counts that can reach c. 60 threads per cm, or even higher.[8] The vast majority of the classical textiles are woven with single z-twisted fibres in both the warp and the weft. The lack of obvious spin in the weft of the Karabournaki textile is unusual, but has parallels in a few of the extremely weft-faced classical textile fragments.[9] The textiles in the British Museum collection constitute an important addition not only to the limited number of preserved cloth remains from northern Greece, but also, in the case of the Karabournaki fragment, to the corpus of textiles made of animal fibre, providing us with valuable information on textile technology and resource exploitation in ancient Greece.

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[6] Metallinou *et al*. 2009.
[7] See Spantidaki and Moulhérat 2012, 195, 198.
[8] Spantidaki and Moulhérat 2012, 195, 198.
[9] See Moulhérat and Spantidaki 2009, 17-18; Spantidaki and Moulhérat 2012, 198.

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